

CLAIMS

1. A portable ice cooler for refrigerating food, beverages and other articles, comprising:
 - a) a soft fabric shell constructed and arranged to form a container including interior walls defining an enclosed space and including a lid that may be manually opened or closed for access to the enclosed space; and
 - b) an ice sheet including a plurality of encapsulated spaced apart refrigerant cubes attached to said outer shell along one or more of the interior walls of said container.
2. The portable ice cooler of claim 1, further including:
an insulation layer extending between said outer shell and said ice sheet.
3. The portable ice cooler of claim 1, further including:
a plurality of spaced apart seams formed by threads sewn into said ice sheet and said shell for attaching said ice sheet to said shell.
4. The portable ice cooler of claim 1, further including:
a transparent lining secured to an interior wall of said container for forming a pocket in which said ice sheet is deployed and by which said ice sheet is attached to the interior wall.
5. The portable ice cooler of claim 1, wherein:
said interior walls comprise a cylindrical side wall.
6. The portable ice cooler of claim 1, wherein:
said lid includes a zipper secured along its perimeter for operating as a closure to said container.

7. The portable ice cooler of claim 1, further including:
one or more zippered storage pockets attached to said outer shell along the exterior of said container.
8. A portable ice cooler for refrigerating food, beverages and other articles, comprising:
 - a) a soft outer shell of flexible fabric constructed and arranged to form a container including interior walls defining an enclosed space within its interior and including a lid that may be manually opened or closed for access to the enclosed space; and
 - b) a plurality of ice sheet segments each including a plurality of encapsulated spaced apart refrigerant cubes attached to said outer shell along one or more of the interior walls of said container.
9. The portable ice cooler of claim 8, further including:
an insulation layer extending along the interior walls of said container in between said outer shell and said ice sheet segments.
10. The portable ice cooler of claim 9, wherein:
said insulation layers comprise polyurethane foam.
11. The portable ice cooler of claim 8, further including:
a plurality of spaced apart seams running between said refrigerant cubes of said ice sheet segments formed by threads sewn through said ice sheet for attaching said ice sheet segments to said outer shell.
12. The portable ice cooler of claim 8, further including:
a plurality of transparent linings secured to the interior walls of said container so as to form a closed pockets in which said ice sheets segments are deployed and by which said segments are attached to said interior walls.

13. The portable ice cooler of claim 8, wherein:
said outer shell includes a plurality of fabric sheets sewn together at seams that define the corners of said container.
14. The portable ice cooler of claim 8, wherein:
said lid includes a zipper connected along its perimeter for operating as a closure to said container.
15. A portable ice cooler for refrigerating food, beverages and other articles, comprising:
 - a) a plurality of side walls, a bottom wall and a top wall defining an enclosed space having interior walls;
 - b) an ice sheet including a backing layer and a top layer between which a plurality of spaced apart refrigerant cubes are encapsulated in rows and columns separated by lanes; and
 - c) means for attaching said ice sheet to one of said walls.
16. The portable ice cooler of claim 15, wherein:
said side walls, bottom wall and top wall comprise flexible fabric forming a soft outside shell for said cooler.
17. The portable ice cooler of claim 16, further including:
an insulation layer extending between said outer shell and said ice sheet.
18. The portable ice cooler of claim 17, wherein:
said insulation layer comprises polyurethane foam.
19. The portable ice cooler of claim 15, wherein:
said means for attaching includes a plurality of spaced apart seams formed by threads sewn through said ice sheet along said lanes for attaching said ice sheet to said shell.

20. The portable ice cooler of claim 16, wherein:
said means for attaching includes a transparent lining secured to one of said interior walls of the container for forming a pocket in which said ice sheet is deployed and by which said ice sheet is attached to the interior wall.
21. The portable ice cooler of claim 16, wherein:
said top wall comprises a lid for said container and includes a zipper which operates as a closure for controlling access into said container.
22. A portable ice cooler for refrigerating food, beverages and other articles, comprising:
a) a plurality of side walls, a bottom wall and a lid defining an enclosed space having interior walls;
b) a plurality of ice sheet segments each including a planar backing layer and a top layer between which a plurality of spaced apart refrigerant cubes are encapsulated in rows and columns separated by lanes; and
c) means for attaching said ice sheet segments to one or more of said walls.
23. The portable ice cooler of claim 22, wherein:
said side walls, bottom wall and lid include a layer of flexible fabric forming a soft outside shell for said cooler.
24. The portable ice cooler of claim 23, further including:
an insulation layer extending along said walls and between said outer shell and said ice sheet segments.
25. The portable ice cooler of claim 24, wherein:
said insulation layer comprises polyurethane foam.

26. The portable ice cooler of claim 23, wherein:
said means for attaching includes a plurality of spaced apart seams formed by threads sewn through said ice sheet segments along said lanes for attaching said ice sheet segments to said outside shell.
27. The portable ice cooler of claim 22, wherein:
said means for attaching includes a transparent lining secured to an interior wall of the container for forming a plurality of pockets in which said ice sheet segments are deployed and by which said ice sheet segments are attached to the interior wall.
28. The portable ice cooler of claim 22, wherein:
said lid includes a zipper which operates as a closure for controlling access into said cooler.
29. The portable ice cooler of claim 22, further comprising:
a zippered storage pocket attached to one of said side walls.
30. A wall construction for use in portable ice coolers, comprising:
a) a layer of flexible fabric constructed and arranged to serve as a protective outside shell having an interior surface; and
b) an ice sheet including a plurality of encapsulated spaced apart refrigerant cubes attached to said interior surface of said fabric layer.
31. The wall construction of claim 30, further including:
an insulation layer extending between said fabric layer and said ice sheet.
32. The wall construction of claim 31, wherein:
said insulation layer comprises polyurethane foam.

33. The wall construction of claim 30, further including:
a plurality of spaced apart seams running between said cubes formed by threads sewn through said ice sheet for attaching said ice sheet to said fabric layer.
34. The wall construction of claim 31, further including:
a transparent lining layer secured to said insulation layer opposite said fabric layer which is constructed and arranged to form a pocket in which said ice sheet is deployed and by which said ice sheet is attached to the interior surface.
35. A wall construction for use in portable ice coolers, comprising:
a) a layer of flexible fabric constructed and arranged to serve as a foundation component and as a protective outside shell having interior and exterior surfaces; and
b) an ice sheet attached to said fabric layer including a backing layer and a top layer between which a plurality of spaced apart refrigerant cubes are encapsulated in rows and columns separated by lanes.
36. The wall construction of claim 35, further including:
an insulation layer extending between said fabric layer and said ice sheet.
37. The wall construction of claim 36, wherein:
said insulation layer comprises polyurethane foam.
38. The wall construction of claim 35, further including:
a plurality of spaced apart seams running between said cubes formed by threads sewn through said ice sheet along said lanes for attaching said ice sheet to said fabric layer.
39. The wall construction of claim 36, further including:
an insulation layer extending between said fabric layer and said ice sheet.

40. A portable ice cooler for refrigerating food, beverages and other articles, comprising:
- a) a cylindrical side wall, a bottom wall and a top wall defining an enclosed space within interior walls;
 - b) an ice sheet including a backing layer and a top layer between which a plurality of spaced apart refrigerant cubes are encapsulated in rows and columns; and
 - c) means for attaching said ice sheet to said side wall.
41. The portable ice cooler of claim 40, wherein:
said cylindrical side wall, bottom wall and top wall comprise a flexible fabric for forming a soft outside shell for said cooler.
42. The portable ice cooler of claim 40, further including:
an insulation layer extending between said outer shell and said ice sheet.
43. The portable ice cooler of claim 41, wherein:
said means for attaching includes a plurality of spaced apart seams of threads sewn through side wall and ice sheet between said rows and columns.
44. A portable ice cooler for refrigerating food, beverages and other articles, comprising:
- a) a soft outer shell of flexible fabric constructed and arranged to form a container including interior walls defining an enclosed space and including a lid that may be manually opened or closed for controlling access into the container;
 - b) a removable ice sheet including a plurality of encapsulated spaced apart refrigerant cubes adapted for being deployed within said enclosed space; and
 - c) means for detachably retaining said ice sheet in position along one or more of the interior walls of the outer shell of said container.

45. The portable ice cooler of claim 44, in which said means for detachably retaining said ice sheet, includes:

a removable insert conforming to the interior shape of said enclosed space while providing a narrow chamber along said interior walls in which said ice sheet may reside.

46. The portable ice cooler of claim 45, in which said removable insert is comprised of a transparent rigid plastic material.